

**Gates & Cooper LLP**

Howard Hughes Center  
6701 Center Drive West, Suite 1050  
Los Angeles, California 90045

RECEIVED  
CENTRAL FAX CENTER  
JUL 18 2005

**FAX TRANSMISSION TO USPTO**

TO: Commissioner for Patents  
Attn: Examiner Andrew J. Rudy  
Patent Examining Corps  
Facsimile Center  
Alexandria, VA 22313-1450

FROM: George H. Gates  
OUR REF.: 9391  
TELEPHONE: (310) 642-4146

RECEIVED  
OICE/IAP  
JUL 19 2005

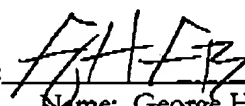
Total pages, including cover letter: 22

**PTO FAX NUMBER: 571-273-8300**

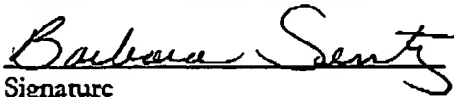
If you do NOT receive all of the pages, please telephone us at (310) 641-8797, or fax us at (310) 641-8798.

Title of Document Transmitted:	TRANSMITTAL SHEETS AND BRIEF OF APPELLANT.
Applicant:	Paul H. Phibbs, Jr.
Serial No.:	09/943,060
Filed:	August 30, 2001
Group Art Unit:	3627
Title:	CAPITAL ALLOCATION IN A NET INTEREST REVENUE IMPLEMENTATION FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM
Our Ref. No.:	9391

Please charge all fees to Deposit Account No. 14-0225 of NCR Corporation, the assignee of the present application.

By:   
Name: George H. Gates  
Reg. No.: 33,500

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on the date shown below.

  
Signature

July 18, 2005  
Date

GHG/bjs

G&C 30145.404-US-U1

RECEIVED  
CENTRAL FAX CENTER  
JUL 18 2005

Due Date: July 18, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Paul H. Phibbs, Jr.	Examiner:	Andrew J. Rudy
Serial No.:	09/943,060	Group Art Unit:	3627
Filed:	August 30, 2001	Docket:	9391
Title:	CAPITAL ALLOCATION IN A NET INTEREST REVENUE IMPLEMENTATION FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM		

CERTIFICATE OF MAILING OR TRANSMISSION UNDER 37 CFR 1.8

I hereby certify that this correspondence is being filed via facsimile transmission to the U.S. Patent and Trademark Office on July 18, 2005.

By: [Signature]  
Name: George H. Gates

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

We are transmitting herewith the attached:

- ☒ Transmittal sheet, in duplicate, containing a Certificate of Mailing or Transmission under 37 CFR 1.8.
- ☒ Brief of Appellant(s).
- ☒ Charge the Fee for the Brief of Appellant(s) in the amount of \$500.00 to the Deposit Account.

Please charge all fees to Deposit Account No. 14-0225 of NCR Corporation (the assignee of the present application). A duplicate of this paper is enclosed.

Customer Number 22462  
GATES & COOPER LLP  
Howard Hughes Center  
6701 Center Drive West, Suite 1050  
Los Angeles, CA 90045  
(310) 641-8797

By: [Signature]  
Name: George H. Gates  
Reg. No.: 33,500  
GHG/bjs

**RECEIVED** 3106418798  
**CENTRAL FAX CENTER**  
**JUL 18 2005**

Due Date: July 18, 2005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	)	
	)	
Inventor: Paul H. Phibbs, Jr.	)	Examiner: Andrew J. Rudy
	)	
Serial #: 09/943,060	)	Group Art Unit: 3627
	)	
Filed: August 30, 2001	)	Appeal No.: _____
	)	
Title: CAPITAL ALLOCATION IN A NET	)	
INTEREST REVENUE	)	
IMPLEMENTATION FOR FINANCIAL	)	
PROCESSING IN A RELATIONAL	)	
<u>DATABASE MANAGEMENT SYSTEM</u>	)	

**BRIEF OF APPELLANT**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR §41.37, Appellant's attorney hereby submits the Brief of Appellant on appeal from the final rejection in the above-identified application as set forth in the Office Action dated November 18, 2004.

Please charge the amount of \$500.00 to cover the required fee for filing this Brief as set forth under 37 CFR §41.20(b)(2) to Deposit Account No. 14-0225 of NCR Corporation, the assignee of the present application. Also, please charge any additional fees or credit any overpayments to Deposit Account No. 14-0225.

I. **REAL PARTY IN INTEREST**

The real party in interest is NCR Corporation, the assignee of the present application.

07/19/2005 CCHAU1 00000030 140225 09943060  
01 FC:1402 500.00 DA

1

30145.404-US-U1

## II. RELATED APPEALS AND INTERFERENCES

There are related appeals in the following co-pending and commonly-assigned patent applications:

Application Serial No. 10/016,452, filed on December 10, 2001, by Brian J. Wasserman et al., entitled DYNAMIC EVENT SELECTION FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM, attorney's docket number 9618 (30145.419US01);

Application Serial No. 10/016,779, filed on December 10, 2001, by Brian J. Wasserman et al., entitled PARALLEL SELECTION PROCESSING FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM, attorney's docket number 9620 (30145.416US01);

Application Serial No. 09/943,059, filed on August 21, 2001, by Paul H. Phibbs, Jr., entitled ALLOCATED BALANCES IN A NET INTEREST REVENUE IMPLEMENTATION FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM, attorney's docket number 9512 (30145.405USU1);

Application Serial No. 09/608,355, filed on June 29, 2000, by George R. Hood et al., entitled ADVANCED AND BREAKTHROUGH NET INTEREST REVENUE IMPLEMENTATION FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM, attorney's docket number 9006 (30145.401US01);

Application Serial No. 09/610,646, filed on June 29, 2000, by George R. Hood et al., entitled BASIC AND INTERMEDIATE NET INTEREST REVENUE IMPLEMENTATIONS FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM, attorney's docket number 8980 (30145.397US01);

Application Serial No. 09/608,682, filed on June 29, 2000, by George R. Hood, entitled RISK PROVISION IMPLEMENTATION FOR FINANCIAL PROCESSING IN A RELATIONAL DATABASE MANAGEMENT SYSTEM, attorney's docket number 9015 (30145.392US01); and

Application Serial No. 09/608,681, filed on June 29, 2000, by George R. Hood et al., entitled OTHER REVENUE IMPLEMENTATION FOR FINANCIAL PROCESSING IN A

RELATIONAL DATABASE MANAGEMENT SYSTEM, attorney's docket number 9015 (30145.391US01).

### III. STATUS OF CLAIMS

Claims 1-15 are pending in the application.

Claims 1-15 were rejected under 35 U.S.C. §103(a) as being unpatentable in view of "College Accounting, Seventh Edition," to Price.

Claims 1-15 are being appealed.

### IV. STATUS OF AMENDMENTS

No amendments have been made subsequent to the final Office Action.

### V. SUMMARY OF THE INVENTION

Appellant's independent claims 1, 6 and 11 are generally directed to a method, system and article of manufacture for performing financial processing in a computer.

Independent claim 1 recites a method of performing financial processing in a computer. The method of claim 1 comprises the step of accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status. The method of claim 1 also comprises the step of performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:

Profit	=	Net Interest Revenue (NIR)
	+	Other Revenue (OR)
	-	Direct Expense (DE)
	-	Indirect Expense (IE)
	-	Risk Provision (RP)

In the method of claims 1, the Net Interest Revenue (NIR) is calculated as:

$$\begin{aligned}\text{NIR} &= \text{Interest Revenue} \\ &- \text{Cost of Funds} \\ &+ \text{Value of Funds} \\ &- \text{Interest Expense} \\ &+ \text{Earnings on Allocated Equity (EOAE)};\end{aligned}$$

wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

Independent claim 6 is a system for financial processing. The system of claim 6 comprises both a computer and logic performed by the computer. The system of claim 6 includes logic for accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status. The system of claim 6 also includes logic for performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:

$$\begin{aligned}\text{Profit} &= \text{Net Interest Revenue (NIR)} \\ &+ \text{Other Revenue (OR)} \\ &- \text{Direct Expense (DE)} \\ &- \text{Indirect Expense (IE)} \\ &- \text{Risk Provision (RP)}\end{aligned}$$

In the system of claim 6, the Net Interest Revenue (NIR) is calculated as:

$$\begin{aligned}\text{NIR} &= \text{Interest Revenue} \\ &- \text{Cost of Funds} \\ &+ \text{Value of Funds} \\ &- \text{Interest Expense} \\ &+ \text{Earnings on Allocated Equity (EOAE)};\end{aligned}$$

wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

Independent claim 11 is an article of manufacture embodying logic for performing financial processing in a computer. The logic of claim 11 comprises the step of accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status. The logic of claim 11 also comprises the step of performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:

$$\begin{aligned}\text{Profit} &= \text{Net Interest Revenue (NIR)} \\ &+ \text{Other Revenue (OR)} \\ &- \text{Direct Expense (DE)} \\ &- \text{Indirect Expense (IE)} \\ &- \text{Risk Provision (RP)}\end{aligned}$$

In the article of claim 11, the Net Interest Revenue (NIR) is calculated as:

$$\begin{aligned}\text{NIR} &= \text{Interest Revenue} \\ &- \text{Cost of Funds} \\ &+ \text{Value of Funds} \\ &- \text{Interest Expense} \\ &+ \text{Earnings on Allocated Equity (EOAE)};\end{aligned}$$

wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

With regard to the claims, Appellant's attorney requests that the Board refer to the specification generally. Specific portions of the specification that directly relate to the claims on appeal include:

- (a) at page 3, line 14 through page 4, line 4;
- (b) at page 4, line 26 through page 6, line 14;
- (c) at page 8, line 1 through page 22, line 18, and in FIG. 2 as reference numbers 200-214;
- (d) at page 23, lines 17-26, and in FIG. 3 as reference number 314; and
- (e) at page 24, line 8 through page 25, line 29, and in FIG. 4 as reference numbers 400-404.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1-15 are obvious under 35 U.S.C. §103(a) in view of "College Accounting, Seventh Edition," to Price.

VII. ARGUMENTS

A. The Office Action Rejections

In paragraph (4) of the Office Action, claims 1-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Price et al., "College Accounting, Seventh Edition," (Price).

Appellant's attorney respectfully traverses these rejections.

B. Appellant's Independent Claims

As noted above, Appellant's independent claims 1, 6 and 11 are generally directed to an invention that performs financial processing in a computer.

Claim 1 is representative, and comprises the steps of:

(a) accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status;

(b) performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:



Profit = Net Interest Revenue (NIR)  
+ Other Revenue (OR)  
- Direct Expense (DE)  
- Indirect Expense (IE)  
- Risk Provision (RP)

(c) wherein the Net Interest Revenue (NIR) is calculated as:

NIR = Interest Revenue  
- Cost of Funds  
+ Value of Funds  
- Interest Expense  
+ Earnings on Allocated Equity (EOAE);

(d) wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

C. The Price Reference

Price is a college accounting textbook that describes accounting concepts and principles. The portions cited describe analyzing business transactions including the accounting cycle, accounting for assets and liabilities including accounts receivable and uncollectible accounts, and responsibility and cost accounting including departmentalized profit and cost centers.

D. Arguments Directed To The First Grounds for Rejection: Whether Claims 1-15 Are Obvious Under 35 U.S.C. §103(a) In View of Price.

1. Claims 1, 6 and 11

The Appellant's invention, as recited in independent claims 1, 6 and 11 is patentable over the reference, because it contains limitations not taught by the reference. Specifically, the reference does not teach or suggest the specific combination of limitations found in Appellant's claims.

The Office Action, however, asserts the following:

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price et al. "College Accounting, Seventh Edition" (hereafter "Price")

Price discloses event attributes, e.g. pgs 28-41, 529, 531, 966-982 (Fig. 27-5), a method measuring profit based on the factors of net interest revenue, other revenues (Fig. 27-5, line 4, "Operating Revenues"), direct expenses (Fig. 27-5, line 22, "Direct Expenses"), indirect expenses (Fig. 27-5, line 30, "Indirect Expenses"), and risk (Fig. 27-5, line 6, "Less Sales Returns and Allowances"), all set up to take advantage of flexible business rules.

Official Notice is taken that performing financial processing using computer software is common knowledge in the art.

To have provided business rules to calculate known variations of one of the factors, e.g., earnings on allocated equity, would have been obvious to one of ordinary skill in the art.

To have provided a method of performing financial processing for an account using software for a computer measuring profit based on the factors of net interest revenue, other revenues, direct expenses, indirect expenses and risk, all set up to take advantage of flexible business rules the business rules to calculate known variations of one of the attribute factors, e.g. risk provisions, would have been obvious to one of ordinary skill in the art. Doing such would incorporate common knowledge data along with common knowledge software.

Appellant's August 13, 2004 and February 11, 2004 REMARKS have been reviewed, but are not moot in light of the new rejection. In short, Appellant's profitability calculations are common knowledge variance for defining total income less total expenses. The account, event and organization attributes, e.g., future losses, direct and indirect expenses, claimed have been common knowledge criteria used within the business community for a period of time far exceeding Appellant's filing date. To have incorporated such common knowledge in the profitability calculations of Price, as modified by Official Notice, would have been obvious to one of ordinary skill in the art.

Appellant's attorney respectfully disagrees.

Price does not teach or suggest the claimed elements of accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status, and performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:

Profit = Net Interest Revenue (NIR)  
+ Other Revenue (OR)  
- Direct Expense (DE)  
- Indirect Expense (IE)  
- Risk Provision (RP)

wherein the Net Interest Revenue (NIR) is calculated as:

NIR = Interest Revenue  
- Cost of Funds  
+ Value of Funds  
- Interest Expense  
+ Earnings on Allocated Equity (EOAE);

wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

More specifically, Price does not teach or suggest the claimed profitability calculations wherein the Net Interest Revenue (NIR) is calculated in the manner as set forth in the independent claims.

Instead, the "Net Interest Revenue" is only referred to generally by the Office Action, and no specification citation to Price is made with regard to this element. Consequently, the rejections fail to persuade.

Appellant's claimed invention provides operational advantages over the system disclosed in Price. Price reflects an outdated approach to income statements. Appellant's invention, on the other hand, describes a different, more sophisticated model for implementing profitability calculations in a computer system, as well as a different, more sophisticated set of relationships between the elements of the model. Price fails to teach or suggest the specific model, all of the elements of the model, or the relationships between the various elements.

Thus, Appellant's attorney submits that the independent claims are allowable over Price. Further, the dependent claims are submitted to be allowable over Price in the same manner, because they are dependent on independent claims, and because they contain all the limitations

of the independent claims. In addition, the dependent claims recite additional novel elements not shown by Price.

## 2. Claims 2, 7 and 12

Claims 2, 7 and 12 recite that the Earnings on Allocated Equity are allocated to the accounts using an option selected from a group comprising: (1) no calculation of the Earnings on Allocated Equity; (2) a calculation of the Earnings on Allocated Equity based on a simple equity ratio with no allowance for equity risk; (3) an allocation of equity for all assets following one or more regulatory standards; and (4) an allocation of equity using an external economic allocation rule, based on account cohorts and a capital asset pricing model. The Office Action rejects these claims only generally, i.e., on the same basis as the independent claims, without citing any specific location within the reference as teaching these limitations. Appellant's attorney disagrees with this analysis, and submits that nowhere does the reference teach or suggest the limitations of these claims.

## 3. Claims 3, 8 and 13

Claims 3, 8 and 13 recite that the allocation of equity based on the simple equity ratio with no allowance for equity risk comprises:

$$EOAE(a) = R_{equity} * ER * \sum AB_{(asset,s,t)}(a)$$

wherein the summation is taken over all asset balances for an account a, and:

EOAE(a) = Earnings on Allocated Equity for the account a,

$AB_{(asset,s,t)}(a)$  = Average Asset Balances of the account a, including any allocated asset balances,

ER = an Equity Ratio, and

$R_{equity}$  = a Treatment Rate for equity.

The Office Action rejects these claims only generally, i.e., on the same basis as the independent claims, without citing any specific location within the reference as teaching these limitations. Appellant's attorney disagrees with this analysis, and submits that nowhere does the reference teach or suggest the limitations of these claims.

4. Claims 4, 9 and 14

Claims 4, 9 and 14 recite that the allocation of equity for all assets following regulatory standards comprises:

$$EOAE(a) = R_{equity} * \sum [Amt(a) * W(BIS(a)) * Cap Ratio]$$

wherein the summation is taken over all balances of an account a, and:

EOAE(a) = Earnings on Allocated Equity for the account a,

Amt(a) = an amount related to the account a,

W(BIS(a)) = a weight determined by the regulatory standard,

Cap Ratio = a risk-weighted capital ratio, and

R<sub>equity</sub> = a Treatment Rate for equity.

The Office Action rejects these claims only generally, i.e., on the same basis as the independent claims, without citing any specific location within the reference as teaching these limitations. Appellant's attorney disagrees with this analysis, and submits that nowhere does the reference teach or suggest the limitations of these claims.

5. Claims 5, 10 and 15

Claims 5, 10 and 15 recite the allocation of equity using the external economic allocation rule, based on account cohorts and the capital asset pricing model, comprises:

$$\begin{aligned} EOAE(a) &= \sum R_{equity} * E_{cohort}(a)(Amt(a)) \\ &= \sum R_{equity} * [\alpha + \beta * Amt(a)] \end{aligned}$$

wherein the summation occurs if Amt(a) is a set of values for an account a, such as the account and allocated balances of the account, and:

EOAE(a) = Earnings on Allocated Equity for the account a,

Amt(a) = an amount related to the account a,

Cohort(a) = a cohort of accounts in which the account a is a member,

E<sub>cohort</sub>(a) = an equity allocation rule for the cohort of the account a that

is a linear function:

$\alpha + \beta * \text{Amt}(a)$ , and

$R_{\text{equity}} = \text{a Treatment Rate for equity.}$

The Office Action rejects these claims only generally, i.e., on the same basis as the independent claims, without citing any specific location within the reference as teaching these limitations. Appellant's attorney disagrees with this analysis, and submits that nowhere does the reference teach or suggest the limitations of these claims.

### VIII. CONCLUSION

In light of the above arguments, Appellant's attorney respectfully submits that the cited references do not anticipate nor render obvious the claimed invention. More specifically, Appellant's claims recite novel physical features which patentably distinguish over any and all references under 35 U.S.C. §§ 102 and 103.


As a result, a decision by the Board of Patent Appeals and Interferences reversing the Examiner and directing allowance of the pending claims in the subject application is respectfully solicited.

Respectfully submitted,

GATES & COOPER LLP  
Attorneys for Appellant

Howard Hughes Center  
6701 Center Drive West, Suite 1050  
Los Angeles, California 90045  
(310) 641-8797

Date: July 18, 2005

By:   
Name: George H. Gates  
Reg. No.: 33,500

GHG/

**APPENDIX**

1. (ORIGINAL) A method of performing financial processing in a computer, comprising:

(a) accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status;

(b) performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:

$$\begin{aligned}\text{Profit} &= \text{Net Interest Revenue (NIR)} \\ &+ \text{Other Revenue (OR)} \\ &- \text{Direct Expense (DE)} \\ &- \text{Indirect Expense (IE)} \\ &- \text{Risk Provision (RP)}\end{aligned}$$

(c) wherein the Net Interest Revenue (NIR) is calculated as:

$$\begin{aligned}\text{NIR} &= \text{Interest Revenue} \\ &- \text{Cost of Funds} \\ &+ \text{Value of Funds} \\ &- \text{Interest Expense} \\ &+ \text{Earnings on Allocated Equity (EOAE)};\end{aligned}$$

(d) wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

2. (ORIGINAL) The method of claim 1, wherein the Earnings on Allocated Equity are allocated to the accounts using an option selected from a group comprising:

- (1) no calculation of the Earnings on Allocated Equity;
- (2) a calculation of the Earnings on Allocated Equity based on a simple equity ratio with no allowance for equity risk;
- (3) an allocation of equity for all assets following one or more regulatory standards; and

(4) an allocation of equity using an external economic allocation rule, based on account cohorts and a capital asset pricing model.

3. (ORIGINAL) The method of claim 2, wherein the allocation of equity based on the simple equity ratio with no allowance for equity risk comprises:

$$EOAE(a) = R_{equity} * ER * \sum AB_{(asset,a,t)}(a)$$

wherein the summation is taken over all asset balances for an account a, and:

$$\begin{aligned} EOAE(a) &= \text{Earnings on Allocated Equity for the account a,} \\ AB_{(asset,a,t)}(a) &= \text{Average Asset Balances of the account a, including any} \\ &\quad \text{allocated asset balances,} \\ ER &= \text{an Equity Ratio, and} \\ R_{equity} &= \text{a Treatment Rate for equity.} \end{aligned}$$

4. (ORIGINAL) The method of claim 2, wherein the allocation of equity for all assets following regulatory standards comprises:

$$EOAE(a) = R_{equity} * \sum [Amt(a) * W(BIS(a)) * Cap Ratio]$$

wherein the summation is taken over all balances of an account a, and:

$$\begin{aligned} EOAE(a) &= \text{Earnings on Allocated Equity for the account a,} \\ Amt(a) &= \text{an amount related to the account a,} \\ W(BIS(a)) &= \text{a weight determined by the regulatory standard,} \\ Cap Ratio &= \text{a risk-weighted capital ratio, and} \\ R_{equity} &= \text{a Treatment Rate for equity.} \end{aligned}$$

5. (ORIGINAL) The method of claim 2, wherein the allocation of equity using the external economic allocation rule, based on account cohorts and the capital asset pricing model, comprises:

$$\begin{aligned} EOAE(a) &= \sum R_{equity} * E_{cohort}(a)(Amt(a)) \\ &= \sum R_{equity} * [\alpha + \beta * Amt(a)] \end{aligned}$$



wherein the summation occurs if Amt(a) is a set of values for an account a, such as the account and allocated balances of the account, and:

EOAE(a) = Earnings on Allocated Equity for the account a,  
 Amt(a) = an amount related to the account a,  
 Cohort(a) = a cohort of accounts in which the account a is a member,  
 $E_{\text{cohort}}(a)$  = an equity allocation rule for the cohort of the account a that  
 is a linear function:  
 $\alpha + \beta * \text{Amt}(a)$ , and  
 $R_{\text{equity}}$  = a Treatment Rate for equity.

6. (ORIGINAL) A system for financial processing, comprising:  
 a computer;

logic, performed by the computer, for:

(a) accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status;

(b) performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:

Profit = Net Interest Revenue (NIR)  
 + Other Revenue (OR)  
 - Direct Expense (DE)  
 - Indirect Expense (IE)  
 - Risk Provision (RP)

(c) wherein the Net Interest Revenue (NIR) is calculated as:

NIR = Interest Revenue  
 - Cost of Funds  
 + Value of Funds  
 - Interest Expense  
 + Earnings on Allocated Equity (EOAE);

(d) wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

7. (ORIGINAL) The system of claim 6, wherein the Earnings on Allocated Equity are allocated to the accounts using an option selected from a group comprising:

- (1) no calculation of the Earnings on Allocated Equity;
- (2) a calculation of the Earnings on Allocated Equity based on a simple equity ratio with no allowance for equity risk;
- (3) an allocation of equity for all assets following one or more regulatory standards; and
- (4) an allocation of equity using an external economic allocation rule, based on account cohorts and a capital asset pricing model.

8. (ORIGINAL) The system of claim 7, wherein the allocation of equity based on the simple equity ratio with no allowance for equity risk comprises:

$$EOAE(a) = R_{equity} * ER * \sum AB_{(asset,s,r)}(a)$$

wherein the summation is taken over all asset balances for an account a, and:

$$\begin{aligned} EOAE(a) &= \text{Earnings on Allocated Equity for the account a,} \\ AB_{(asset,s,r)}(a) &= \text{Average Asset Balances of the account a, including any} \\ &\quad \text{allocated asset balances,} \\ ER &= \text{an Equity Ratio, and} \\ R_{equity} &= \text{a Treatment Rate for equity.} \end{aligned}$$

9. (ORIGINAL) The system of claim 7, wherein the allocation of equity for all assets following regulatory standards comprises:

$$EOAE(a) = R_{equity} * \sum [Amt(a) * W(BIS(a)) * Cap Ratio]$$

wherein the summation is taken over all balances of an account a, and:

$$\begin{aligned} EOAE(a) &= \text{Earnings on Allocated Equity for the account a,} \\ Amt(a) &= \text{an amount related to the account a,} \\ W(BIS(a)) &= \text{a weight determined by the regulatory standard,} \end{aligned}$$

Cap Ratio = a risk-weighted capital ratio, and  
 $R_{equity}$  = a Treatment Rate for equity.

10. (ORIGINAL) The system of claim 7, wherein the allocation of equity using the external economic allocation rule, based on account cohorts and the capital asset pricing model, comprises:

$$\begin{aligned} EOAE(a) &= \sum R_{equity} * E_{cohort}(a)(Amt(a)) \\ &= \sum R_{equity} * [\alpha + \beta * Amt(a)] \end{aligned}$$

wherein the summation occurs if Amt(a) is a set of values for an account a, such as the account and allocated balances of the account, and:

EOAE(a) = Earnings on Allocated Equity for the account a,  
 Amt(a) = an amount related to the account a,  
 Cohort(a) = a cohort of accounts in which the account a is a member,  
 $E_{cohort}(a)$  = an equity allocation rule for the cohort of the account a that is a linear function:  
 $\alpha + \beta * Amt(a)$ , and  
 $R_{equity}$  = a Treatment Rate for equity.

11. (ORIGINAL) An article of manufacture embodying logic for performing financial processing in a computer, comprising:

(a) accessing account, event and organization attributes from a database accessible by the computer, wherein: (1) the account attributes comprise data about accounts being measured, (2) the event attributes comprise data about account-related transactions, and (3) the organization attributes comprise data about the organization's financial status;

(b) performing one or more profitability calculations in the computer using the account, event and organization attributes accessed from the database, as well as one or more profit factors and one or more rules, wherein the profitability calculations include:

$$\begin{aligned} \text{Profit} &= \text{Net Interest Revenue (NIR)} \\ &+ \text{Other Revenue (OR)} \\ &- \text{Direct Expense (DE)} \end{aligned}$$

- Indirect Expense (IE)
- Risk Provision (RP)

(c) wherein the Net Interest Revenue (NIR) is calculated as:

$$\begin{aligned}
 \text{NIR} &= \text{Interest Revenue} \\
 &- \text{Cost of Funds} \\
 &+ \text{Value of Funds} \\
 &- \text{Interest Expense} \\
 &+ \text{Earnings on Allocated Equity (EOAE)};
 \end{aligned}$$

(d) wherein the Earnings on Allocated Equity includes an identification of how much equity to allocate to the accounts, and one or more rates used in the calculation of the NIR due to the allocation.

12. (ORIGINAL) The article of manufacture of claim 11, wherein the Earnings on Allocated Equity are allocated to the accounts using an option selected from a group comprising:

- (1) no calculation of the Earnings on Allocated Equity;
- (2) a calculation of the Earnings on Allocated Equity based on a simple equity ratio with no allowance for equity risk;
- (3) an allocation of equity for all assets following one or more regulatory standards; and
- (4) an allocation of equity using an external economic allocation rule, based on account cohorts and a capital asset pricing model.

13. (ORIGINAL) The article of manufacture of claim 12, wherein the allocation of equity based on the simple equity ratio with no allowance for equity risk comprises:

$$\text{EOAE}(a) = R_{\text{equity}} * \text{ER} * \sum \text{AB}_{(\text{asset},s,t)}(a)$$

wherein the summation is taken over all asset balances for an account a, and:

$$\begin{aligned}
 \text{EOAE}(a) &= \text{Earnings on Allocated Equity for the account } a, \\
 \text{AB}_{(\text{asset},s,t)}(a) &= \text{Average Asset Balances of the account } a, \text{ including any} \\
 &\quad \text{allocated asset balances,} \\
 \text{ER} &= \text{an Equity Ratio, and} \\
 R_{\text{equity}} &= \text{a Treatment Rate for equity.}
 \end{aligned}$$

14. (ORIGINAL) The article of manufacture of claim 12, wherein the allocation of equity for all assets following regulatory standards comprises:

$$EOAE(a) = R_{equity} * \sum [Amt(a) * W(BIS(a)) * Cap Ratio]$$

wherein the summation is taken over all balances of an account a, and:

EOAE(a)	=	Earnings on Allocated Equity for the account a,
Amt(a)	=	an amount related to the account a,
W(BIS(a))	=	a weight determined by the regulatory standard,
Cap Ratio	=	a risk-weighted capital ratio, and
R <sub>equity</sub>	=	a Treatment Rate for equity.

15. (ORIGINAL) The article of manufacture of claim 12, wherein the allocation of equity using the external economic allocation rule, based on account cohorts and the capital asset pricing model, comprises:

$$EOAE(a) = \sum R_{equity} * E_{cohort}(a)(Amt(a))$$

$$= \sum R_{equity} * [\alpha + \beta * Amt(a)]$$

wherein the summation occurs if Amt(a) is a set of values for an account a, such as the account and allocated balances of the account, and:

EOAE(a)	=	Earnings on Allocated Equity for the account a,
Amt(a)	=	an amount related to the account a,
Cohort(a)	=	a cohort of accounts in which the account a is a member,
E <sub>cohort</sub> (a)	=	an equity allocation rule for the cohort of the account a that is a linear function: $\alpha + \beta * Amt(a)$ , and
R <sub>equity</sub>	=	a Treatment Rate for equity.